THE GENESEE FARMER.

Vol. VI. ROCHESTER, AUGUST 20, 1836. No. 34.

Published by Luther Tucker.

TERMS.—The Farmer is published every Saturday, making an annual volume of 416 pages, to which is added a Title-page and Index, at the low price of $2,50, or $2,00 if payment is made at the time of subscribing.

☞ All subscribers must commence with the volume, Jan. 1, or with the half volume, July 1. No subscription taken for less than six months.

☞ THE MONTHLY GENESEE FARMER is made up of selections from this paper, and published on the first of each month, forming, with Title-page and Index, an annual volume of 200 pages, at the low price of FIFTY CENTS a year, *payable always in advance.*

THE GENESEE FARMER.

SATURDAY, AUGUST 20, 1836.

Van Mons' Method of Raising Fruit Trees FROM THE SEED.

We published a few weeks since, from the Boston Horticultural Register, Gen. Dearborn's introductory remarks to the account given by A. Poiteau, of the means which were employed by Van Mons to obtain excellent fruit from the seed. Omitting the speculative part of the article, we here give, as briefly as the nature of the subject will admit, the most interesting and useful facts, which were developed during the course of the experiments of Van Mons, with the hope that it may induce others to follow his example, even though it be on a very limited scale.

Van Mons laid the ground-work for his experiments by collecting, during excursions through every part of the surrounding country, wild and natural stocks of fruit trees, which exhibited a favorable appearance, and which, from his familiarity with the characteristics, he was enabled at once to select. By means of these acquisitions, and repeated sowings from them, he had, in a few years, 80,000 fruit trees in his nursery, which enabled him to make his experiments on a large scale, and to obtain results more promptly and with greater certainty. "His repeated successive sowings," says Poiteau, "of annual flowers, and perennial shrubs which grew and fructified in a short time; his excursions to observe the wild types of our fruit trees, in places where they grew and reproduced in a state of nature; his new generations, which were obtained from wild and free or natural stocks, as well as from the first sowings in his nursery; his thousand upon thousand of observations collected from every quarter, have enabled Mr. Van Mons to establish a law which admits of no exceptions; this law is, that so long as plants remain in their natural situation, they do not sensibly vary, and their seeds always produce the same; but, on changing their climate and territory, several among them vary, some more and others less, and when they have once departed from their natural state, they never again return to it, but are removed more and more therefrom, by successive generations, and produce, sufficiently often, distinct races, more or less durable; and that finally, if these varieties are even carried back to the territory of their ancestors, they will neither represent the character of their parents, nor even return to the species [varieties] from whence they sprung."

Another very important conclusion at which Van Mons arrived from a long series of observations, was this:—While pear trees, in a state of nature, and in their native soils, always reproduce seeds, without any sensible variation; the seeds which a domesticated pear,—that is to say, one that has been for a long time in a state of variation in consequence of a change of climate or other cause,—yields at its *hundredth* fructification, produce trees not only very different from itself, but still very different from the trees which have been produced from the seed of its *first* fructification; and the older a domesticated pear becomes, the nearer do the trees produced from its latest seeds, approach to a state of nature, without, however, ever returning to it. Having arrived at this conviction, he concluded that "by sowing the first seeds of a new variety of fruit trees, there should be obtained trees always variable in their seeds, because they can no longer escape from this state of variation, and which are less disposed to return toward a wild state, than those produced from seeds of an ancient variety; and as those which tend toward a wild state have less chance of becoming perfect according to our tastes, than those which are in the open field of variation, it is in the seminary of the first seeds of the newest varieties of fruit trees, that we should expect to find more perfect fruits."

The above quotation comprises the whole theory of Van Mons. "It was to verify it, and put it in pratice, that from that period he collected in his nursery young wild trees, young free stocks,* and sowed large quantities of the seeds and stones of various kinds of fruit trees, in order to have their *first* fruits, and sow their seeds in turn to obtain a generation, of whose novelty he was sure, and to take it as a point of departure for his experiments. Although Mr. Van Mons operated on thousands of various kinds and different varieties of trees at the same time, I will assume, in order to render what I say more clear, in explaining his progress, that he made his experiments on a single variety of pear.

"As soon as the young pear tree with which he began his experiments, produced its first fruit, Mr. Van Mons sowed the seeds. There resulted a first generation, the individuals of which, although of very different kinds, did not resemble their parent. He cultivated them with care, and endeavored to hasten their growth, as much as possible, by all the known means in his power. These young trees yielded fruit, which were generally small, and almost all of them bad. He sowed the seed of these, and obtained a second generation without interruption—which is very important—that were very different in kind, but did not resemble their parent, although they had a less wild appearance than their predecessors. These were cultivated with equal attention, and they fructified earlier than had their parent. The fruits of this second generation also varied as much as the trees which bore them, but part of them appeared less near the wild state than the preceding; yet only a few possessed the requisite qualities to entitle them to preservation. Constant in his plan, Mr. Van Mons sowed the seeds, and obtained a third continued generation, the greater part of the young trees of which had a *phasis* of good augury, that is, something of the physiognomy of our good domesticated pear trees, and they were consequently less various in appearance. Being carefully cultivated, as had been the preceding, these trees of the third generation fructified still earlier than had those of the second generation. Several of them produced edible fruit, although not yet decidedly good, but sufficiently ameliorated to convince Mr. Van Mons that he had discovered the true path to amelioration, and that he should continue to follow it. He also recognized, with not less satisfaction, that the oftener the generations succeeded each other, without interruption, the more promptly did they fructify. The seeds of the fruit of this third generation, which had a good appearance, were sowed, and the trees managed as carefully as the preceding, and produced a fourth generation, the trees of which were a little less varied, and nearly all of them had an appearance of favorable augury; they fructified in a shorter time than the third generation; many of the fruits were good, several excellent, but a small number still bad. He again took the seeds of the best kinds of these pears, sowed them and obtained a fifth generation, the trees of which were less various than the preceding, fructified sooner, and produced more good and excellent fruits, than those of the fourth."

He continued his experiments till 1834, when he had reached the eighth generation, and at each he always obtained fruit more and more perfect.

"Mr. Van Mons made the same experiment on almost all the other kinds of fruits. The apple yielded no other than good fruit in the fourth generation. The stone fruits, as the peach, apricot, plum, and cherry, became perfect in a still shorter time; all of them produced good and excellent fruits in the third generation; which should be the case, for our stone fruit always reproduce more or less good without any particular attention, and therefore they should with less difficulty and in shorter time, arrive at a perfect state of amelioration."

The *time* required to arrive at a satisfactory result, that is, the number of years before each tree would produce its first fruit, and the number of generations necessary to advance the fruit to a state of sufficient excellence, was a subject of anxious importance. Van Mons found that three or four generations in uninterrupted succession, embracing from twelve to fifteen consecutive years, were sufficient to obtain no other than excellent fruit from the stones of peaches, apricots, plums, and cherries; and to obtain no other than excellent apples, four successive generations, and about twenty consecutive years were required. With the pear, the difficulty was greater. "At first, Mr. Van Mons was unable to procure the seeds of varieties very recently procreated; the seeds he was obliged to com-

* That is, natural stocks from *domesticated* varieties.

mence his experiments with, were obtained from ancient varieties, whose age was much advanced, which from experience tended to retard the first fructification of his young trees. Nevertheless, Mr. Van Mons has been able to ascertain that twelve or fifteen years was the mean term of time from the moment of planting the first seed of an ancient variety of the domestic pear, to the first fructification of the trees which sprung from them. The trees from the second sowing of the seed of the first generation, have yielded their first fruit at an age of from ten to twelve years, as the mean term; those of the third generation, at an age of from eight to ten years; those of the fourth generation, at an age of from six to eight years; and finally those of the fifth generation, at the age of six years. Mr. Van Mons being actually at the eighth generation, has informed me that he has obtained several pear trees which fructified at *the age of four years*. From this decreasing progression, it may be seen that the fear of a lengthened experiment ought to decrease in proportion as it advances; and that adding the requisite years of the first five generations of the pear, a point is reached where none other than excellent pears are obtained, at the end of forty-two years. But if in each generation, as has been shown, there are always several trees which do not await the mean term named for their fructification, the time may be estimated at thirty-six years, for obtaining from the pear, in five uninterrupted generations, new trees and fruits, all of which are of excellent quality. The time can still be more abridged; for in one of his last letters Mr. Van Mons informed me that from two of his first sowings of pears, there were trees produced which fructified at the age of six years."

His method of treating his seedlings was as follows: He left them in the seed bed two years; he then took them up, threw away a part as worthless, and transplanted the most vigorous at a proper distance to allow them to develop themselves. He planted them sufficiently near to force them to run up tall, and to form pyramidal tops, without pruning; this hastens, he states, their fructification. This distance was about ten feet. While waiting for them to fructify, opportunity was afforded to examine the characteristics of their future excellence. It was generally not until they were four years of age, that they began to develop distinctly these characteristics. From long continued observations, he was enabled to establish the following prognostics:

"1. *Prognostics of favorable augury.* A good form, a smooth and slightly shining bark, a regular distribution of the branches, in proportion to the height of the tree; annual shoots bent, striated, a little twisted, and *breaking clean without splinters*, thorns long garnished with eyes or buds, their whole, or nearly whole length; eyes or buds plump, not divergent, red or grizzled; leaves smooth, of a mean size, crimped on the side of the middle nerve, borne on petioles rather long than short, the youngest, in spring, remaining a long time directly against the bud, the others, or the inferior, expanded, hollowed into a gutter from the bottom towards the top, but not their whole length.

"2. *Prognostics of bad augury.* Branches and twigs confused, protruding like those of the hornbeam, or broom, thorns short, without eyes; leaves averted from the bud, from their first appearing, small, round, terminating in a short point, guttered their whole length. These characteristics indicate small fruit, flesh sweet and dry, or baking fruit and late.

"3. *Prognostics of early fruit.* Wood large, short; buds large and near.

"4. *Prognostics of late fruit.* Wood slim, branches well distributed, pendent, the shoots a little knotted, generally denote late delicious fruit; with leaves round, point short, stiff, of a deep green, borne on petioles of mean length, are analogous signs, but less sure."

We close this article with an account of the severe disappointments which this distinguished man has been doomed to experience of late years. While pursuing his experiment on a very extensive scale in his nursery at Brussels, in 1819, the ground which was occupied by his vast collection of new fruits, was declared to be indispensible for streets and building lots, and he was summoned to vacate it in the short space of two months, under the penalty of seeing all his trees cut down and thrown into the fire. As professor of the University of Louvain, he resolved to remove his nursery to that city, that it might be more completely under his control; but the period assigned for evacuating his nursery, was unfortunately in the winter. His loss was consequently great and irreparable; and being obliged to confide nearly the whole care and labor of removal to others, it was with great difficulty he saved a twentieth part of his nursery. After his removal to Louvain, with the exception of having a great number of young plants broken down and drawn out of the ground, by the masses of ice which were left upon it, after a great freshet in the river which passes through the city, and which overflowed his nursery to the depth of seven or eight feet, he enjoyed more or less quietly his new location during the following thirteen years. His correspondence was renewed and extended, his losses were replaced by new acquisitions, and the mass of his observations was augmented, and his new varieties were liberally disseminated. "But," observes Porteau, "*public utility* had sworn that she would finally embitter his old age. In 1831, we besieged the citadel D'Anvers, and although Mr. Van Mons' nursery was fourteen leagues distant from the army, the engineers could not find a more commodious place than that nursery, to bake the bread of the soldiers in; consequently a great part of his trees were destroyed, having constructed their ovens on the ground where they grew, and the fruit of the others was exposed to pillage. Still the philosophy of Mr. Van Mons sustained him in this unexpected devastation; he hired two other tracts of land into which he removed his young plants; he was consoled because he had time to collect, although it was summer, scions of the trees which were sacrificed to afford a place for the erection of ovens; but *public utility* had not yet exhausted all her severities against him. Unfortunately, there was not a Chaptal in the council of the prince, and the engineer, seeing nothing, decided again in 1835, in the name of *public utility*, that that Mr. Van Mons' nursery was the sole and only point on the globe, proper for establishing a glass house for lighting the city. Heaven grant that these gentlemen may be enabled to see better for the future; but it is not in their power to prevent the true friends of intellectual light, and of public prosperity, from regarding their decision as an act of ignorance and the grossest vandalism.

"Mr. Van Mons is actually seventy years of age; he has consecrated his whole, all his life, a large part of his fortune, to public utility, and yet it is in the name of *public utility* that they have slain him, assassinated him! O age of light, how dark thou art!

"In the commencement of September, 1831, Mr. Van Mons, on sending me a box of pears, which were the first of a seventh generation, observed in his letter, 'when you taste these pears, the trees which bore them will no longer exist.' In fact, I learned a few days after, that the destructive axe had prostrated these trees and many others, that the nursery was dishonored, lost, and Mr. Van Mons frustrated in his dearest hopes, which were to send us the products of his labor.

"It is impossible to foresee, or rather I dare not express my fears, as to what will become of the ruins of an establishment, which wanted encouragement, which was of a nature to elevate the glory of an empire."

A note is added, stating that he had been ordered to evacuate the whole of the land before the end of February.

The Persimmon.

(*Diospyros virginiana.*)

The Persimmon tree perfectly matures its fruit in the Genesee Country, though we have not seen it growing indigenously further north than the banks of the Susquehanna near Catawissy. It is entirely hardy. The fruit is pleasant, "in form and bigness like a date, very firm like that fruit and almost as sweet," and we think it well worthy of the attention of those who have a taste for varieties.

This tree belongs to Polygamia Diœcia of the Linnæan system—the male flowers growing on separate plants, while those which produce the fruit have hermaphrodite flowers. Botanists have considered that the anthers of the latter were effete and useless. On examining both kinds of flowers however, we discover nothing to warrant the conclusion; and we were strengthened in our doubt by the circumstance of a large grove of these trees, all originating from one root, that were productive; while no male or barren tree was known to exist in the neighborhood. The case seemed to be nearly analogous to what often occurs in our wild grape, and in the strawberry; and we therefore made the following experiment: One persimmon tree had not failed to bear fruit for several years. At the distance of twenty feet from it on the west side, stood a tree which produced only staminate flowers, and another at twice the distance on the east side. In the year 1832, we cut down both the male trees just as the fertile flowers were beginning to open, and immediately removed them so that none of the pollen could reach those flowers. The consequence was, —*not a single persimmon was produced in four years.* Vigorous suckers from the stumps of those trees however sprung up; and this spring we observed that one of them had a few flowers: *The fertile tree is now once more set with fruit.*

From this experiment, which we made at our

cost, both nurserymen and customers may learn the futility of planting out a single tree, far remote from all others, with the hope of its bearing fruit. We have seen a tree that was set out when no other was known to be within hundreds of miles. Neither the nurseryman nor the purchaser, knew to which *sex* it belonged, and it is doubtful if the proprietor knows at this day, for it has always been barren. Our advice to such as wish to cultivate the persimmon, is therefore to buy trees *in pairs*, and to buy them of those who are worthy of their confidence.

The Thistle.

(*Cnicus lanceolatus.*)

The common field thistle subtracts largely from the profits of some farms. Like the dog in the manger, it neither eats grass itself, nor permits the cows or horses, so far as its prickly leaves can extend and keep them off. A few of these weeds had got into an old pasture which is cropt short, and we have just returned from prostrating them. We have therefore had a good opportunity to observe how much ground these intruders had appropriated to their own use. A part of them were in possession of circles more than a foot in diameter, and some of them occupied more than four times that space. When they were removed, the grass appeared in large bunches.

The best method which we have found to extirpate this thistle, is to strike them *sideways* with a broad hoe, when they are just coming into flower. One sweep, passing close to the surface of the ground, is commonly sufficient. At this time, the stalks at that point are brittle, and so rigid as never to sprout again. It is otherwise with this plant in the earlier stages of its growth; and it is not uncommon to see several shoots from remnants which the hogs have left in the ground when they feed on the main root in the spring.

We have seen some farmers take the sythe iustead of the hoe when they attack these weeds: *it is only doing business to the halves.* The main part of the stem is indeed cut down, but enough of it is left standing to produce a fine bunch of thistles in the latter part of the season. "Once done is twice done:" that is, once well done is as good as twice done to the halves, without taking into view the additional labor and the loss arising from postponement.

We would add a word of encouragement to such farmers as have not been particular to keep their fields clear of thistles: It requires much less labor than they imagine,—for though some seeds will come floating on the wind from the field of a slovenly neighbor, yet we can assure them that a very large proportion of the thistles that commonly grow in their pastures, *are from seeds of their own raising.* Raise no seed of your own, and it will be light work at odd times for a boy of eight or ten years old, to keep the pastures clean.

The Chinese Mulberry.

(*Morus multicaulis.*)

Last year our Chinese Mulberry produced fruit, and we have three plants growing from the seed. One is eighteen inches high, and all are in thriving condition. The leaves are as large as those which grow on layers or cuttings of the same size; and prove very satisfactorily to us, that the tale of such seeds producing the common white mulberry is all a fiction. The explanation doubtless is, that the *true* seeds were not obtained.

Whether these seedlings will be *hardier* than trees from cuttings, or not, we do not know; but hope they will be so; and on this account we shall value them higher than trees from cuttings of the old kind. Unfortunately, our tree was so much injured last winter, that no fruit was obtained from it this season.

Roads.

Rarely, if ever, have the common roads of the state been in a worse condition than the present season, as all who have unfortunately been compelled to travel can feelingly bear witness. They were repaired, as it is called, at the usual time, and in the usual manner, by scraping the washings of the road and loose dirt from the sides into the center, and piling it up in a narrow ridge of from one and a half to two feet in depth. This work was mostly done in an interval of dry weather in June, though there were many exceptions to this. The heavy rains which followed, soaked this mass of fresh loose dirt thoroughly; wagons and carriages, confined from the width and pitch of the road to the center or highest part, soon made their way to the original pathway, or below, and the highway for miles presented the appearance of a bed of mortar, hourly stirred by the wheels or axles of the passing vehicles. Dry weather came, and the mortar dried also, but the roads were left so rough, that the *corduroy* roads of the western wilds for a time would have been an agreeable exchange. Now is there any necessity for this annual martyrdom of both man and beast, for at least six weeks in the year, in consequence of repairing roads? We think not; we believe the system radically wrong, and the practice, if any thing, worse than the system. If instead of heaping dirt, muck, and manure into the roads, the labor had been expended in smoothing the surface of the road, clearing it from all loose stones, making sluices to carry off the water, and embankments to prevent its running in and washing the carriage track, and in drawing gravel or small stones to fill up any holes that former washings or undrained spots might have occasioned, it is we think clear, that the intolerable going of June and the fore part of July would not have existed. We wish some of our pathmasters, who are not so wedded to system as to deem all improvement an impossibility, would omit the scraping of dirt for one year, follow the course suggested above, and see what the result would be. There would be this consolation for them in the attempt: the roads *might* be better—they could possibly be no worse. G.

Silk Culture in Kentucky.

Extract of a letter from one of our subscribers in Danville, Kentucky:—"I, as well as many others in our state, are engaging in the culture of silk. Some silk has been raised in our state for 12 or 14 years, from the native mulberry, which is very abundant, and makes silk of good quality. I have from 25 to 30,000 plants of the white mulberry growing from the seed sown last spring. They are very flourishing, and I have no doubt but will do well in our climate. I shall procure a few thousands of the Morus multicaulis this fall and next spring, and extend my native mulberries to several thousands, believing, from some little experience and observation, that as good silk can and has been made from that tree as we ordinarily see in the market. I shall feed from 4 to 600,000 worms next year on the native mulberry, which is the best evidence I can give of my confidence of its answering every purpose, and making silk of good quality."

Summer Flowers.

(*In a letter of the 1st instant.*)

In a packet of seeds which came from Switzerland, one paper was marked "*Chironia Centaurium,*" synonymous with *Gentiana Centaurium* of Linnæus, and *Erythræa Centaurium* of Persoon. It is called an ANNUAL by the botanists; but although the seeds were sown a year ago last spring, and soon after germinated, it has only come very recently into bloom. It is a beauty, with pale red flowers, and about one foot in height.

Loudon remarks that this genus is "impatient of cultivation, and therefore rarely seen in gardens." My plants grow in a shady border, the soil being composed of pit-sand and vegetable earth from the woods. In England it is called the Lesser Centory, and resembles the Centory of the Middle and Southern States.

Clintonia elegans is from our Western Coast in the neighborhood of the Columbia River, where it was found by Douglas, and named by him in honor of Governor Clinton. Since the year 1833 there has been a succession on the same spot from seeds *annually* shed; and as the soil seems not entirely to suit it, it is dwarfish, though pretty. It is nearly allied to *Lobelia.*

Cytisus capitatus is a small bushy shrub with branches remarkably foliaceous, and terminated by a *head* or cluster of yellow flowers. It is a native of Austria.

Tropæolum majus v. atro-sanguinea is a new variety of the common Nasturtium, which has excited much attention among florists. The flower is very dark red with the luster of the richest velvet; indeed it is almost black when it first opens. Not more than half the plants which have sprung from seeds so marked however, produce dark flowers; and whether this arises from mixing the seeds in the shops, or not, I must leave undetermined.

A species of *Œnothera* with handsome yellow flowers, blooms in the evening, and fades before morning. Like *Œ. longiflora* the leaves are "tooth-letted, stems simple, hairy;" and yet I have doubts of its being the species named. It is probably an *annual.*

Clarkia elegans appears to be a larger species than *C. pulchella;* and instead of having petals like the latter "cruciately three-lobed," they are almost spatulate, though latterally very much expanded. This difference will therefore require some modification of the generic character. *Clarkia,* as Nuttall has well remarked, has "the entire habit of *Œnothera.*"

ERRATUM.—Page 241, col. 1, line 2, for J. Puvis read M. Puvis.

There has been quite a *flare up* in Poughkeepsie of late in the sale of real estate. A parcel of land which about six months since was purchased for $30,000, was sold on the 3d inst. for $100,000.

COMMUNICATIONS.

Inoculating of the Chinese Mulberry in the SPRING.

In a former communication we suggested the expedient of inoculating the Chinese Mulberry in the spring, with buds of the preceding year, in order to give the buds a longer season to grow and mature their wood. Buds set at the usual season of inoculating, (mid-summer,) will generally start in a few weeks, and will be very liable to be killed in the winter, (unless the trees are taken up in the fall and placed in a cellar, which we would recommend.) We have made an experiment this season of spring budding, and are highly pleased with the result. Twenty-two buds were set the last of May, in stocks of the white and native mulberry, from one-third to three-fourths of an inch in diameter; all have grown but two or three; some of them are now, (Aug. 1,) near three feet in length, with lateral branches—several of them we have laid down, and shall thus increase them many fold the present season. We prefer this to engrafting, as it is *more sure and much more expeditious*, and the inoculations have the same length of season to grow that the grafts have. The proper time is when the tree is about to put forth its leaves and the bark peels freely, say from the middle to the end of May. As soon as the buds start the stock should be cut off a few inches above, that the buds may have the whole support of the root. Where it is desired to form standard-trees of the Chinese Mulberry, budding is particularly recommended; and it has the advantage of producing harder wood, and better fitted to withstand the severity of our winters. An esteemed friend and correspondent expresses the opinion, that where it is intended to form a close plantation of the *Morus multicaulis*, it is better that it should grow on its own root—then cut the top off annually, and let it spread from the root, as is practiced in France. But even in this case, where it is desired to increase this tree very rapidly, it may be useful to bud it on small stocks of the white, as the whole top may be laid down (even the same season, if budded in the spring,) to take root for itself, and from numerous rooted stalks, which may be taken up in the fall and replanted in the spring. W. W. B.

The Elm Tree.

BY J. B. B.

Of the native trees with which our forests abound, the elm ranks among the foremost. It has not only been pronounced to be "one of the most beautiful trees growing in our northern states," but the "most magnificent vegetable growing in the temperate zones." One of the most interesting and intelligent writers of the Farmer gives it the first place among our native forest trees as a valuable ornamental tree. The size it attains, its numerous branches, richly clothed with tufted foliage, render it a most delightful shade. Numbers of young and flourishing trees, which have sprung up since the clearing off of the forests, are beautifully interspersed over the farms in our section of the country, the elm rearing its spreading branches over the rest, adding value and ornament to the country. It is a matter of fact, that the second growth of timber, not many years hence, must necessarily be in great demand. If we take into consideration the immense quantity yearly made use of in different ways, we must certainly come to the conclusion, that the time is not far distant when the forests will be completely felled, and the farmer's much prized wood lot will be swept of its timber, unless the young plants are suffered to grow, and planting trees is properly attended to. At the present season, hundreds of young elms are to be seen under their parent trees, and if the cattle and sheep that graze the woods could be kept out a few years, or until the largest were beyond their reach, they would amply reward the owner for all his trouble and expense. The larger ones might be kept at proper distances from each other, and a selection might be made of the residue for planting in the open places of a wood lot, and on such parts of the farm as would be most advisable both for value and ornament. The remaining ones, if necessary, might be easily destroyed. The same may be said of many other valuable trees, which the farmer would wish to have growing on his farm. The oak, the ash and hickory, are unquestionably more valuable trees than the elm, but the last mentioned is not only the most beautiful, but also a valuable tree. The farmer considers it very valuable for fencing, and "wheel-rights make great use of it for axletrees and wheel-spokes, &c." It is very rapid in its growth when transplanted in the open fields. Some of the second growth in our section of the country are now sizeable trees, measuring from five to seven feet in circumference. Around the edges of almost every wood lot, as well as on many other parts of a farm, valuable trees might be transplanted to great advantage. A row of oaks on one side, a row of elms on another, of a wood lot, with now and then a locust, introduced where the other trees have fallen, would add much to its beauty and immensely to its value. J. B. B.

Ledyard, August 8, 1836.

From the New York Farmer.

The Harleian Dairy.

BY H. C.

Milk, next to bread, is undoubtedly one of the most general and important articles of human diet. None is more universally salutary, and none more nutritious. To children it is next to indispensable; aged persons who are accustomed to it, find it extremely conducive to their comfort; and return to its use with even a stronger relish than they had for it in childhood. It is an important condiment with much of our food; and it is capable of being used in almost countless variety of delicious and nutritious forms.

Of the various animals whose milk is employed for human food, the cow, both in respect to quality and quantity, is most generally preferred. Goats', asses', and mares' milk are used; but for convenience, nutriciousness, and quantity, the cow is above all others to be chosen; and as far as food is concerned, may be considered among the greatest blessings which Divine Providence has bestowed upon mankind. As matter of diet, there is nothing which in proportion to its weight contains so much nutriment; and as a beverage, to a simple and unadulterated taste, none can be more grateful. In the country, where it can be had pure and in abundance, it ought to constitute the great article of food for children and young persons; and the miserable and pernicious and perfectly innutritious substitutes of tea and coffee, ought to be kept entirely out of their reach. In cities, however, pure milk is almost as difficult to be procured as pure water. In New Yory city, for example, the milk is first deteriorated, if we may be allowed to state, in the cow's udder; that is, where cows are fed upon distillers' swill with scarcely any meal, and with barely hay enough to form a cud, the milk produced is of a very inferior quality; besides, with a large proportion of the milk-dealers, though not all, it undergoes the ruleable and established dilution of one quart of water to four of milk; in addition to this, if it goes into the hands of the grocers, as in general they are too *modest* and *humane* to sell any thing like *strong* drink, it commonly undergoes another application from the town-pump. Indeed, we state upon the best information, that there are grocers in the city, who without any aid from the cow, or at least the slightest possible, have offered the milk-men, when the supplies of the milk-men for their customers fall short, to furnish them from their own (the grocers) resources, what they may need to make their supplies sufficient: that is, they literally manufacture the milk, as we sometimes say, "out of the whole cloth." The process, we understand, is this: to take some Indian meal of the white gourd seed variety, and pass some scalding water through it; and this water, dashed with a slight touch of milk, as Bloomfield calls it, "three times skimmed sky-blue," *can be afforded* at five cents per quart; and at this rate is actually vended to the poor wretches, who want their cent or their two cents' worth for their tea and coffee. Now whether this be or be not a real yankee trick we shall not venture to surmise, but the ingenuity of its performance belongs to the veritable city of Manhattan. It is however all of a piece with many of the London tricks, which London cream is readily manufactured out of flour or magnesia and milk to a consistence to suit the most fastidious. The adulterations of human food, however, where it is susceptible of being adulterated to a profit, are most obvious and enormous, and it would be quite fortunate if all of them were as innocent as the above.

The adulteration of milk, the price obtained for it, and the frauds practiced in its disposal, induced William Harley, of Glasgow, an active and enterprising citizen, some few years since, to form a milk establishment of considerable extent in the neighborhood of that city, for the supply of the market with this article in a pure and cleanly condition; and indeed, so far as depended on human skill, of the very best quality. This dairy attracted very extraordinary attention from its novel and convenient arrangements, and the admirable manner in which the whole business was conducted. It was visited as a matter of great curiosity by vast numbers of people, including many of the nobility, and several of the princes and sovereigns of Europe; and as far as concerned the object of furnishing an article of the best quality, and in the best condition, and with scarcely the possibility of adulteration until it left the hands of the vender, its purposes were admirably accomplished. It was not we believe equally profitable to the enterprising proprietor; the establishment was evidently conducted on too expensive a scale to be expected to yield large returns. Harley has given a detailed account of the establishment, and of his own experience in the dairy business. It is a book containing much valuable information; and I have thought it would be both interesting and useful to the readers of the N. Y. Farmer to have an account of it.

I shall not undertake a particular description of the building. The largest amount of cows kept at any one time was two hundred and sixty. The largest building contained stalls for one hundred cows. There was an appendage which deserves particular attention. At the end of the house was a large tank or reservoir as a depository for the cow's urine; it was fifty feet long, six feet wide, and six feet deep. The surface of the tank was on a level with the bottom of the cellar; it was covered with flat brick work, arched, leaving a space in the center of the arch four feet square, for taking out the sediment. This aperture was surrounded by a wall sufficiently high to prevent the dung from getting into the tank. This was an admirable provision for sa-

ving a substance of extraordinary value to the farmer, where he can avail himself of it. In Flanders it is saved with the greatest care, and mixed with a rape of oil cake as the very best manure which they can apply to their lands. The only provision in this country on any extensive scale for saving it, which we have met with, was at the farm of Robert Smith, Esq., near Baltimore, where a hundred cows were kept; a large reservoir was made in the yard, and gutters and covered drains were formed for the purpose of conveying the urine to this deposit; from which it was taken, and by a machine like that used for sprinkling the streets of cities, was distributed over the fields. The value of this manure is very great, and is not yet appreciated among us. No provision is made for saving it in any of the cow-houses of New York city, where some of the milk establishments exceed three hundred cows, and the feed to which they are accustomed produces the most abundant secretions of urine.

The grand building in the Harleian dairy, which had stalls for one hundred cows, was 95 feet long by 63 feet wide, within the walls. It had vaults under the whole, divided for the purpose of receiving the dung, of storing potatoes and roots, and for an apartment for keeping the cows that were dry and prepared for fattening. This apartment being quiet, and having little light, was deemed better adapted for carrying on the process of fattening than the other cow-houses; darkness and quiet generally contributing to assist the progress, and making the cattle much sooner fit for slaughtering.

It was deemed highly important, and it was so contrived, that the house should be perfectly ventilated, and at the same time preserve an equal temperature—both which points were conducive to their milking and fattening, and the cattle were in this way kept in the best health and condition. The heat was generally kept at the temperature from 60 to 64 degrees of Fahrenheit's scale; and as the walls were plastered carefully, the cattle never experienced any injury from cold even in winter. A direct current of cold air suddenly admitted, was found to be exceedingly injurious, and much pains was taken to avoid this.

The floor on which the cows stood was raised six inches above the passages; this not only showed the cows to advantage, but kept them dry and clean; and two and a half feet of the floor next to the trough was made of composition similar to what is commonly used in making barn floors; because the principal weight of the cows being upon their fore feet, and as in lying down the whole weight is upon their knees, it was obviously desirable to have that part of the stall as smooth and soft as possible. In all cow-houses, he remarks in continuation, the front part of the stall should be rather lower than the back part, since it would enable the cattle to lie easier; and besides this, they would not be apt to slip their calf.

The ordinary manner of fastening cattle in cow-houses, is to fix the neck of the animal between two stakes, which are commonly called stanchions. This mode is greatly disapproved by Mr. Harley, as it prevents the cattle licking themselves. The indulgence of this propensity he deems of much importance to the health of the animal, as it contributes like currying to promote a free perspiration, and increase the circulation of the blood; and thus conduces to their general health. He deems the free ventilation of the cow-houses of great importance; as otherwise the milk is often tainted by the bad odor of the houses, as has been experienced even in passing it from the cow into the pitcher. As the dung was preserved from the wind and weather, it was considered worth 25 per cent. more than that which had been so exposed; and the urine was sold by the butt of about four hundred gallons.

The milk-house in its construction was particularly favored by the nature of the ground. It was long, high, and wide, and every possible means employed to have it cool and airy. The floor was paved with stone of the best quality, the milk dishes were placed upon the pavement on each side, leaving a space for a passage in the center; they were then filled with new milk, a plug was put into the cesspool; the stop cock at the end was turned, and the water allowed to flow until it covered the floor where the milk-vessels were placed. The house was in this way kept cool, and the floor was regularly washed and rubbed with a dry cloth; and this, with a complete ventilation of the premises, kept the air pure. The churning-house at Willowbank was ventilated and lighted by windows in the north side, and in the roof, covered with fine wire grating. The milk office contained the large tubs for receiving the milk from the cows, from which it was measured out to the distributors. The manager had a house within the premises; the dairy-maid and one or two of the servants were accommdated there, it being necessary they should be on the spot night and day. Two apartments, one for the men, another for the women, were allotted, for the purpose of keeping their clothes; and that they might more conveniently change them, before going out to deliver the milk, numerous clothes and towel pins were fixed in the wall; and the rule to be implicitly obeyed by the servants was, that their hair was to be combed, their hands and face washed, and their dress to be neat and clean. Cleanliness, indeed, was always regarded as essentially necessary in this and every part of the establishment.

Milk is often either spoiled or deteriorated from the vessel not being properly cleansed. If milk is put into a place not well ventilated, or where other articles are kept, it will affect its flavor. This was often ascertained by some of the Willowbank customers having their milk deteriorated, after remaining a short time with them, while it retained its rich flavor with others, who received it from the same pitcher at the same time.

There was a steam engine connected with the establishment for various purposes: for heating water, for steaming provender, for propelling a threshing machine, a turnep and potatoe slicer, a hay and straw cutter, a grain bruser or grinder, and churning apparatus. The steam engine was one of about six horse power; but the boiler could have supplied an engine of twelve horse power. Coiled within the boiler was a leaden pipe, 150 feet long, and 2 inches in diameter; cold water was admitted at one end of this pipe by a stop-cock, and the water was heated in passing through the boiler. Branches were taken from the other end of the pipe to the scullery, hot-baths, bakery, &c.

A steam pipe from the boiler was introduced into the steaming vessels for preparing food for the cattle, so that one fire of dross was sufficient for the whole establishment. The milk office and other apartments were also heated by hot water vessels. The steaming vessels were made of plate iron; the one for cows was ten feet long, four wide, and four and a half deep, with a semi-circular top hinged on one side and lifted by weights and pulleys; the lid was formed round the edges to prevent the steam from escaping. The cut provender, consisting of turneps, hay, &c., was put into this vessel in layers, well salted, and with a sufficient quantity of water. The vessel had a false bottom, perforated with holes, under which the steam was admitted. The potatoes were generally steamed by themselves in a vessel, and the fresh water which was deemed unwholsome drawn off. The potatoes, turneps, &c. for the horses were washed clean; those for the cows were not washed, but put in by themselves; and when at the boiling point, the first water was let off; they were then mixed with turneps, hay, &c. in alternate layers, and sprinkled plentifully with salt.

Every milker had a strong tin vessel without a lid, which held about forty quarts. As each cow was milked, the milk was emptied into this vessel, which was placed in the transverse passage, to be out of the reach of any thing that might fall into it, if it were placed in the passage behind the cows. When the vessel was filled it was carried to the milk office, and emptied into the receiving tub, and the quantity marked upon a slate by the clerk or person in attendance; this task was repeated till all the cows were milked, and the whole transferred to the milk-book.

Each distributor had a pair of milk pitchers, with lids to fit tight, which contained from twelve to eighteen quarts. These were locked and secured to prevent adulteration. Every possible pains was taken to preserve the milk free from any extraneous substance, and to deliver it pure to the customers.

We proceed now in our account of the Glasgow Dairy, or milk establishment, quoting freely from the accounts given of it from Harley himself.

As there would occasionally be a surplus of milk, what was returned or not wanted for the customers, was set for cream. Most of the vessels for raising cream were made of oak, and were well washed, boiled, and rinsed every time they were emptied. To prevent the bottoms from twisting or warping by boiling, there was a second bottom transverse; and the two bottoms were pinned together as in ship building. They were twenty-seven inches in diameter and five inches deep.

We believe that wooden vessels are, after all, much to be preferred for the keeping of milk. Metallic dishes of every kind are liable to be corroded by the acid of the milk, producing in some cases a compound absolutely poisonous; and earthern vessels, which are glazed with lead are liable to the same objection. Glass or china would be too expensive, and not procurable; wooden vessels may require rather more care in order to keep them clean, but there is no impracticability in the case, otherwise they are liable to no objection.

The vessels for holding milk and cream for souring, stood in the churning house or an adjoining apartment; the milk or cream stood in them until it was thick and sour, without which it would not churn to advantage. There was a vessel for each different milking, as it was found injurious to mix the milk; and if milk and cream were put in at different times, it was always well stirred. It was found however, that the preferable way was to keep every quantity distinct, and to allow it to become sour by itself.

Large stands were filled at the wash trough and carried to the head passages at feeding time; from these the feeders gave a small additional quantity of food to the cows as they required it; but great care was taken not to give too much to any. Some distiller's wash, or waters, or a mixture of both, was given them to drink; and when the animals were satisfied the vessels were removed. There was also a feeding vessel or tub for each cow, which was made of oak twenty inches in diameter, and ten inches deep.

The byremen were each supplied with a rake, a broom, and a forked stick for gathering up the dry litter to the fore feet of the cows; these were preferred to iron, which sometimes injured the animals' feet. Each milker had a coarse towel, a washing cloth, a currycomb and a hair cloth.

Early in the season, part of the proprietor's farm and some small fields contiguous to the cow-house, were sown with barley and grass seeds; these were watered with cow urine by means of an engine upon the principle of a fire engine. There was also used for that purpose hand barrows with broad wheels, upon which barrels were placed filled with urine. Under the barrels were placed conductors about eight feet long, perforated with small holes; these barrels were easily wheeled along the rich soft ground, which would have been destroyed by horses and carts. The urine was carted to the fields in large casks, from which it was carried in stands resting on spokes, to the engine and barrows.

The grass of the fields thus irrigated was cut 5 ar 6 times a year; and though not very long in the blade, there was always great weight of produce. Indeed, it was so thick and rich that it would have rotted unless cut often.

The first cutting generally commenced about the middle of April, and was continued once a

month. The grass was cut during the day, when the weather was wet or moist; but when it was dry it was cut late at night or early in the morning, and the field irrigated immediately after being cut; the process was sometimes performed during the night. Sir John Sinclair visited one of these fields, which had been cut sixteen times in three years.

There was a public washing house adjoining the dairy, all the soap suds from which was carried into a well or tank, and applied in the same way as urine; and sometimes the two liquids were mixed together, or if the weather was very dry the urine was diluted with water. If private families were to preserve their soap suds, and the urine of their cow if they have one, it would be found of essential benefit in manuring their gardens.

The provender commonly used at Willowbank consisted of hay, straw, grass and green barley; also Swedish turneps, and the different varieties of Aberdeen yellow, red tops, &c., also mangel wurtzel, carrots, cabbage, ground oil cake, bruised beans and other grains.

Mangel wurtzel was recommended to the proprietor as provender for his cows upon economical grounds. He accordingly made trial of it in 1814, but the result did not answer his expectation. It was not productive as a crop except in particular soils, such for instance as suited carrots. Besides it did not stand the frost, and it was found necessary to be taken up in the fall, the tops cut off, and the roots used during the winter, mixed with other provender. A trial was made with this root and Swedish turneps; a corresponding weight of each was given to two lots of cows of equal numbers, and great attention was paid to the quantity and quality of milk produced, and the improvement in the condition of the cattle. In these respects, however, there was found to be little or no variation. The quantity and quality of the milk, and the improvement in the condition of the cattle were much the same; but as the mangel wurtzel did not stand the frost, and moreover required a deep soil in the cultivation, the Swedish turneps were were necessarily preferred.

About this time, Mr. Coke of Norfolk, lost some cows, and other agriculturists had their cattle much injured by eating mangel wurtzel; a circumstance which excited intense interest not unmixed with serious apprehensions, and gave rise to much discussion in the periodicals of the day on the merits of that root. There was no instance, however, in the Willowbank Dairy of any bad effects resulting from the use of it. The quantity given as a mixture, however, was comparatively small, except on the occasion just noticed, when trial was made of it with the turneps; and before that trial was made, the roots had laid a considerable time in a dry cellar, whereas Mr. Cokes' cattle had the roots and leaves when full of juice.

These statements by Mr. Harley, seem to me of considerable importance. I have had considerable experience in raising both the mangel wurtzel and the ruta baga. The mangel wurtzel is a far less certain crop than the ruta baga. It yields often a great amount to the acre, though either through the seeds not germinating, or the plants being cut off after it came up, there were always large vacancies in the field, which vacancies, however, I usually filled up with ruta baga. The mangel wurtzel was liable to be injured by the frosts, and in my own experience it has not kept by any means so well as the ruta baga. As feed for milk cows, I have found them always very fond of it; that it greatly increased their milk; but at the same time rather disordered their bowels and very much reduced their flesh. I have given it always however in good quantities, at the rate often of a bushel after being cut, to a cow per day. Some gentlemen, for whose skill and experience I have great respect, have used and highly approved it. John Lowell, Esq. speaks of its use for milch cows in terms of strong commendation. To ruta baga, I have no objection to be urged excepting the taste, which Cobbett in his enthusiasm for ruta baga insisted upon it, that this peculiar flavor was absolutely agreeable; but to many persons it is extremely nauseous. If the turneps are sound and no decayed parts are given, this taste is not always perceptible; but it becomes so as soon as it is heated, the butter being melted on the cream or milk applied to tea or coffee. There is said to be a remedy for this taste, by using a very small quantity of saltpeter in water, in the milk as it comes from the cow; but I cannot in this case speak from experience.

Mr. Harley continues his account by saying, that instead of attempting the ill-judged economy, which pinches the cattle of their food, every attention was paid to make each cow eat as much as possible without running into the opposite extreme of over-feeding; and for that purpose the mixture was occasionally varied; and sometimes a few raw potatoes or turneps were given by themselves, which tended to whet their appetite. There is a Scotch proverb which says, "the cow milks by the mow," and as the object of the Harleian Dairy was to fatten as well as to yield, the more care and good management were exercised in their feeding, the sooner these objects were accomplished.

Young grass and green barley, but particularly young clover, contain a great quantity of juice, and fixed air, which has often proved injurious to cattle. The irrigation with urine made these crops luxuriant and rich; the first cutting was therefore mixed with a large proportion of old hay or straw, to which was superadded a good quantity of salt, to prevent the cows from swelling or blowing. When wet a greater proportion of these ingredients was used; this mixture was allowed to stand from twelve to twenty-four hours, and was frequently turned and shaken to prevent heating. Young or wet clover was never given without a mixture of dry provender. By this means the rich juices of the green food were absorbed by the dry fodder, which enabled the cattled to feed freely without the risk of injury.

In proportion as grass decreased in the autumn, turneps became a substitute. As the season advanced when grain and distillers' wash were plentiful and cheap, which was generally the case in winter, a large proportion of these was given with the more succulent food; but they were apt to make the cattle grain-sick, and to prove injurious to the stomach of the animal. It has been ascertained if cows are fed long upon grains of distillers' wash, their constitution will be quickly destroyed; cattle thus fed should not be kept longer than eight or ten months. One effect of this copious feeding upon distillers' wash, as we have learned at the New York city establishment, is, that after a while the teeth of the cows thus kept become loosened, and they are unable to masticate any hard or long food. It seems to be a pretty fair inference that where the constitution of an animal becomes thus affected or diseased, the quality of the milk is likely in a correspondent measure to be injured. Of this however, the buyer is not able to know any thing, and it is not for the interest of the seller to inquire too particularly.

Reclaiming Waste Lands.

When we look about us in different parts of the state, we cannot help being struck with the amount of waste lands on every side. These appear in shape of pastures grown up to bushes —in the form of swamps full of alders and birches, and in the bog land which would bear excellent grass if the moss and the hardhacks were destroyed. Many, who undertake to redeem some of their lands, do it but partially, and as a consequence of not going thorough, have it to do over again every year or two. For instance, we know a man who has mowed or cut down his alders four or five times, and they as often sprung up, and soon gave him another crop. A better way to manage this kind of growth is to pull them out by the roots, by means of ox labor. A chain put round them near the roots, and so fastened as to form a noose which will slip up as pulled upon, and a hand to bend the tops over the contrary way from which the oxen pull, will eject them, root and branch. They will never start again. Another method is to have a large stout iron hook made for the purpose; an eye may be made at one end into which to fasten the chain. This may be hooked into the roots and thus they may be *twitched* out with ease and despatch. A yoke of oxen and a couple of hands will clear up, and most effectually too, a goodly piece in a day. In regard to bogs—after they have been ditched in a proper manner so as to make them sufficiently dry—the application of fire in the spring will in a few years effectually clear off such foul stuff as encumber them, and hinder the growth of better productions. In this way much of the waste lands which now disfigure the face of the state, and are comparatively useless, may be rendered smooth and profitable in a short space of time.—*Maine Farmer.*

Farmers' Work.

Culture of Turneps.—If a top dressing of quick lime, soot or ashes, be applied to turneps, soon after they make their appearance above ground, their growth will be forwarded, and it is said they will be secured against the fly. Some advise, and it may be well, if the time and labor can be spared, to leach soot, and sprinkle the plants with the liquor. M'Mahon, in giving directions for the culture of turneps, says: "The plants should be left from seven to twelve inches apart; this must be regulated according to the strength of the land, the time of sowing, and the kind of turneps cultivated; strong ground and early sowing always producing the largest roots.

The width of the hoe should be in proportion to the medium distance to be left between the plants, and the distance should be according to their expected size.

The proper time for the first hoeing is, when the plants, as they lie spread on the ground, are nearly of the size of the palm of the hand; but if weeds are numerous and grow rapidly, they should be checked before the plants have attained that size, lest being drawn up thin and slender they should acquire a sickly habit.

Soiling laboring oxen and horses.—Instead of turning oxen and horses, which you have occasion to use frequently, into a large pasture, in which it is difficult to find or to take them, you may do better to *soil them.* By soiling, we mean to keep them in stables, stalls, yards, &c. and mowing and carrying to them grass and other green or dry food. You should in such cases, take care that they have always water at hand, and plenty of litter to absorb the liquid manure, unless you have reservoirs, &c. to prevent its waste. Arthur Young declared, that "Lucerne is the best plant for soiling, and an acre of it will go farther than any thing else." But clover or any other grass, green or dry, oats or Indian corn, cut up near the roots, cabbages, &c. &c. may often be economically disposed of in feeding cattle and horses, whose services are needed for the prosecution of the daily and hourly labor of the husbandman.

Fallen Fruit.—Be very careful to gather all punctured or decaying fruits, whether on your trees or on the ground, and give them to your swine. If you do not, the worms which such fruits contain, and which have been the cause of their premature decay, will make their escape into the ground, and you will find the evils, which wait on their visitations, will increase on you another season.

Grafted Trees.—Look over your fruit trees, which were grafted last spring, or budded this summer, and suffer no shoots from the stocks to remain, lest they rob your grafts of their nourishment.

Worms in the Head of Sheep.—There exists in some parts, if not in all parts of the country, a species of fly, which naturalists denominate *Oestrus ovis*, or *sheep bot*, of the same genus though of a different variety with the fly which deposits eggs on the hair of horses and causes bots in those animals. This fly attacks sheep from about the middle of August to the middle of September, deposits eggs in the nostrils of the animals, and cause those *worms in the head*, which so frequently destroy them. The Mechanic's Gazette recommends as a preventive, "covering the no-

trils of the sheep with a gauzy substance, through which the animals can breathe, and keeping it in its place by some adhesive substance. We doubt however the practicability of keeping a gauzy substance in its place by any adhesive matter.

Another precaution, which sheep owners assure us has been found effectual, is to keep the noses of sheep constantly smirched with tar from about the middle of August to the latter part of September. If the sheep swallow some of the tar, so much the better, as it prevents or cures the rot and confirms their health. In order the better to effect the smearing of the sheep's noses the following process has been recommended. Mix a little fine salt with tar, just enough to make the tar agreeable to the animal, and place the mixture under cover, where the sheep can have access to it, and they will keep their noses sufficiently smeared to prevent the insect from attacking them.—*N. E. Farmer.*

Chilblains.

This affection forms one of the most troublesome of the small troubles incident to cold weather. The cause of chilblains is generally to be traced to sudden transitions from heat to cold, or the reverse. Exposure to cold and wet united, and particularly immersion in snow water, are causes of chilblains. Accordingly, they do not always occur during the continuance of intense frost, but are often more troublesome when the temperature begins to be milder by a thaw. It was observed by the celebrated Larrey, in the winter campaign of the French in Russia and Poland, that but a few days before, and a few days after the battle of Wagram, the thermometer was very low, from ten to fifteen degrees below zero; and yet during that time there was no mortification, nor did any other particular suffering about the hands and feet occur. But about two days after the battle a thaw took place, the thermometer rose from ten to twenty degrees, and then a great number of cases of mortification of the feet occurred in the army, in some particular divisions that was much exposed, and nearly all the soldiers suffered more or less.

Chilblains occur most frequently in persons of feeble constitution and delicate skin. Hence they are common in females and in children. Like many other evils, they are more easily prevented than cured. The means of prevention are first, such as go to diminish the susceptibility of the surface, and second, such as protect it from vicissitudes of temperature. Among the first there is nothing better than cold water, and thorough friction with a coarse towel. Among the most popular remedies for chilblains may be mentioned a strong brine, vinegar, camphorated alcohol, oil of turpentine, and other articles of this class. We have lately seen recommended the tincture of iodine as a wash, which is said to bring the parts very soon to a healthy state. A solution of the chloride of lime, in the proportion of one part to twenty-four parts of water, has been found to answer a good purpose. Another wash which has produced excellent effects is prepared by adding one part of tincture of flies to six parts of liquid opodeldoc. With this the affected part should be frequently rubbed. When the skin has broken, and the part has assumed the character of a sore, regular medical aid treatment must be resorted to, as the matter then becomes too serious for quackery.—*Phil. Herald.*

Amount of Fodder that can be raised on an acre or land.

As a general rule in this part of the country, our farmers are satisfied if they obtain a ton of hay from an acre of land. This however is far from being the full amount which an acre is capable of producing even of hay; and if planted to some other kind of vegetable, it hardly begins to be what can be obtained from the same surface.

Many farmers have raised as much as *fifty tons* of ruta baga from an acre. This however may be considered an extra crop—say half as much for a medium crop— that is, 25 tons, which will amount to about 800 bushels. Cattle like such food in the winter exceedingly,—it is green and succulent—it supplies the want of green grass and green herbage. It is heavy, distends the stomach, and keeps them in good health, and saves a great deal of hay; and yet comparatively few farmers think of these things, or enter into the business with any kind of system which is based upon calculation.

There is another plant, which, although not so nutritious as the ruta baga, but is nevertheless eaten with great avidity by cattle in the winter season, and which will afford a large amount per acre. It is the *Cabbage.* These are easily raised, and according to the Editor of the Baltimore Farmer and Gardener, will yield, allowing 10,000 to stand upon the acre, about *forty tons* of fodder. Notwithstanding the chance of obtaining this amount of fodder from a single acre—a man would be called crazy should he cultivate an *acre* of cabbage, however well he might do it.

The common English or flat turnep, which is cultivated so extensive in Europe, has received but little attention with us. It is true every one sows a small patch or two. The cow-yard is oftentimes ploughed up and sowed down to them, or a corner of the garden—or some piece in the cornfield—but no man, or few men, would think of putting in an acre. An acre in England often yields 15 tons of turneps, and this amount would be equivalent, in nutritive matter, according to the analysis of Van Thaer, to more than three tons of the best hay.

Many other crops of the kind might be cultivated exclusively for cattle food, which would yield more than treble the amount that could be obtained in the shape of hay, and which would be much more grateful to the cattle.—*Maine Far.*

Scales of fishes.—A. M. Dumeshil, of Wunstorf, states that according to his observations the metallic lustre of the scales of fishes is due to the presence of the purest silver, and that the 12,000th part of a grain of silver is contained in the scale of a carp.

Meteorological Table,

KEPT AT ROCHESTER, FOR JULY, 1836.

	10 A. M.				10 P. M.			
Days.	therm.	barometer.	winds.	sky.	therm.	barometer.	winds.	sky.
1	68	29,60	s w	fair	78	29,60	w	fair
2	80	29,55	s	do	68	29,50	s w	cloudy
3	80	29,50	s w	do	78	29,45	s e	doe
4	78	29,45	s w	do	75	29,45	w	fair
5	78	29,50	s w	do	68	29,50	w	do
6	74	29,45	w	cloudy*a*	74	29,45	w	do
7	82	29,50	w	fair	78	29,55	s w	do*f*
8	82	29,55	s w	do	80	29,45	w	do
9	80	29,40	s w	do	78	29,45	w	cloudy
10	68	29,65	n	do*b*	72	29,65	n w	fair
11	70	29,65	e	do	73	29,60	n e	do
12	76	29,55	s	do	80	29,45	s w	do
13	82	29,40	s w	do	82	29,50	s	do
14	75	29,65	n e	cloudy*c*	70	29,65	n e	do
15	70	29,70	n e	fair	63	29,75	n e	do
16	70	29,75	e	do	65	29,75	n e	do
17	70	29,85	e	do	63	29,85	e	do
18	76	29,90	s w	do	70	29,85	e	do
19	78	29,80	w	do	70	29,70	w	do
20	80	29,55	n w	do	74	29,40	w	cloudy
21	78	29,25	s w	cloudy*d*	66	29,20	n e	do
22	72	29,40	n e	fair	58	29,25	n e	fair
23	74	29,50	e	do*d*	68	29,40	e	cloudy
24	72	29,35	n	cloudy*d*	60	29,55	w	fair
25	65	29,65	n e	do	56	29,65	n e	do
26	70	29,60	n e	fair	56	29,65	w	do
27	72	29,70	n w	do	58	29,60	n e	do
28	74	29,60	n e	do	64	29,50	n e	do
29	75	29,25	s w	cloudy	68	29,25	s w	do
30	76	29,40	w	fair	65	29,45	w	do
31	78	29,50	w	do	71	29,50	s w	do

Mean.—Ther. 72.00—Bar. 29.54—Rain 2 in.

a Showers—*b* showers, thunder—*c* spring water 54°—*d* rainy—*e* thunder showers—*f* ther. 86° at 2 P. M.

Cocoons and *Raw Silk* will be purchased to any extent by the Northampton Silk Company. They have contracted with Dr. Stebbins for a number of bales of raw material, consigned to him by an importing house in Boston, and are ready to purchase all raw silk which may be offered. These facts should convince people of the earnestness of the business, and that our own folks should raise trees and feed worms, rather than compel our Silk Manufacturer to send abroad for the raw material. In a few days we hope to have some specimens of silk for exhibition, from the looms of the Northampton Silk Company.—*Northampton Cour.*

It is said Gen. Fenwich of the U. S. Army, is about to resign his commission.

WILLIAM ATKINSON,
REAL ESTATE BROKER,
17, *Exchange-street, Rochester.*

BUYS and sells Farms and City Property on commission, and attends to the collection of Mortgages.

☞ Several valuable Farms for sale.

February, 1836. feb 20f6m*

Valuable Books for Farmers.

CHAPTAL'S Agricultural Chemistry, price $1.25
Comstock on Silk, price 37 1-2 cts.
Cobb do. do.
Nuttall's Ornithology of Land Birds, price $2,50.
do. do. Water Birds, price $2,50.
Hind, Mason, and American Farriers.
Bushby on the Vine, price 50 cts.
Smith on the Honey Bee, price 37 1-2.
Fisher on the Vine, price 75 cts.
Also—Odd volumes of the Genesee Farmer.

For sale by HOYT & PORTER,
july 6 No. 6 State street.

ELECTION NOTICE.—*Sheriff's Office, Monroe County, Rochester, July* 23, 1836.—A general election is to be held in the county of Monroe, on the 7th, 8th and 9th days of November next, at which will be chosen the officers mentioned in the notice from the Secretary of State, of which a copy is annexed. ELIAS POND, Sheriff.

State of New-York, Secretary's Office, Albany, July 15, 1836.

Sir—I hereby give you notice that at the next general election of this state, to be held on the 7th 8th and 9th days of November next, a Governor and Lieutenant Governor are to be elected.

I also give you notice that a Senator is to be chosen in the Eighth Senate District in the place of John Griffin, whose term of office will expire on the last day of December next.

JOHN A. DIX, Secretary of State.

To the Sheriff of the county of Monroe.

N. B.—The Inspectors of Election in the several towns in your county will give notice of the election of a Representative to Congress from the 28th Congressional District, and that 42 Electors of President and Vice President are also to be chosen at the general election aforesaid. They will also give notice of the election of Members of Assembly, and for filling any vacancies in county offices which may exist. july26

Monroe Horticultural Garden & Nursery.

THE subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots &c. &c.

ALSO—A few hundred of the Morus Multicaulis, or Chinese Mulberry, the White Italian Mulberry by the hunbred or thousand, Grape Vines of both native and foreign varieties, mosty of large size, for sale by the single vine, hundred or thousand, at reduced prices. The subscriber has a large collection of Green-House Plants of choice and select varieties, and in good condition.

☞ Orders for *Mr.* Rowe's Nursery received by the Publisher of this paper.

Catalogues will be sent to those who wish them, gratis, or may be had by calling at the office of the Genesee Farmer. ASA ROWE.

Greece, Monroe co. N. Y. Sept. 13, 1836.

For the Genesee Farmer.

The Choice of a Wife.

As the attainment of happiness is the grand spring of human action, I have been often surprised at the inattention so apparent in the generality of mankind, to that most important concern of their lives, the choice of a wife—a choice on which not only their present welfare, but even their everlasting felicity may depend. Indeed, if we might judge from the slight regard paid to an object of so much moment, we could easily suppose it to be a trivial circumstance, in which little or no reflection was requisite, or that beauty or fortune were in themselves whatever was essential or necessary to the happiness of the conjugal union. But let those who, in the ardor of unreflecting youth, form such gay visions of splendid enjoyment and everlasting passion, consider that there are requisites of a nobler kind, without which, when it may be too late, they may find themselves involved in irretrievable ruin. What melancholy histories have been recorded, where manly virtue has been sacrificed to avarice or unthinking youth! Smitten by exterior charms alone, without the attractive graces of modesty, sentiment, and discretion, they have become the involuntary victim of insipid if not of meretricious beauty. I would not be understood, however, that I hold beauty and fortune in no estimation. The former, when united to piety, good sense, and sweetness of temper, can be slighted by those only who are devoid of ideas of whatever is lovely or excellent in human nature; and fortune, or at least a competence, is absolutely necessary, since without it the highest degree of virtue, and the most enchanting graces, are insufficient to ensure happiness in the conjugal state. Certainly no prudent person would engage in the married state without a sufficiency of wealth on one side or the other. That lover cannot regard his mistress with the generous tenderness of love, who would involve her in all the sad consequences of reciprocal poverty. True love never forgets the happiness of its object, for when this ceases to be regarded, it is not the generous tenderness of love, but the wildness of passion. A young man, who himself has a sufficient fortune, should not always look for an equivalent of that kind in the object of his love. The important object of his inquiries ought not to be whether she has riches, but whether she possesses those qualities which naturally form the amiable wife and the exemplary mother. Who can find a virtuous woman, says Solomon, her price is above rubies—her husband shall be known in the gates. But while interest pervades every bosom, and is the sole motive to every union, what can more rationally be expected, than unhappy matches? These observations, however cannot obviate the just complaints against the frequency of matches, in which beauty or fortune only are regarded. Beauty, says Lord Kames, is a dangerous property, tending to corrupt the mind of a wife, though it soon loses its influence over the husband. A figure agreeable and engaging, that inspires affection without the ebriety of love, is a much safer choice. The graces lose not their influence like beauty. A virtuous woman, who makes a good companion, charms her husband at the end of thirty years, perhaps more than at first. The comparison of love to fire holds good in one respect: the fiercer it burns the sooner it is extinguished. Without a certain congeniality of sentiment, independent of the adventitious circumstances of fortune or beauty, or where those moral resources are wanting which invite to conversation, and which render home so delightful and endearing, the connubial state is the very opposite of a heaven.

Let reason teach, what passion fain would hide,
That Hymen's bands by prudence should be tied;
Venus in vain the wedded pair would crown,
If angry fortune on their union frown;
Soon will the flat'ring dream of bliss be o'er,
And cloyed imagination cheat no more—
When waking to a sense of lasting pain,
With mutual tears the nuptial couch they stain,
And that fond love which should afford relief,
Does but increase the anguish of their grief,
While both could easier their own sorrows bear,
Than the sad knowledge of each other's care.

LITTLETON.

Where there is a diversity of tastes, temper and wishes, home soon becomes disagreeable, and the domestic circle is but another name for anarchy and discord and confusion. The husband, disgusted with the scene of wretchedness which has become obvious to every view, and which perhaps he has contributed his share in procuring, seeks relief from his upbraiding wife, and from the pityless pelting of his own upbraiding conscience, in the maddening bowl, which, alas! only increases the evil, which too soon sends him to his last account. He leaves his destitute wife and orphan children, whom he had so solemnly sworn to protect and provide for, to the tender mercies of a pitiless world. Hence a *wise* and judicious parent would conduct his daughter to a *wise* and judicious choice of a husband. He will not so much recommend the necessity of wealth, as of good temper, sound judgment, discretion, and regularity of conduct. With these the husband, if he is of a reputable profession, may improve the fortune of his wife, and render it of much greater advantage to each other, than the most ample equivalent in money, with the reverse of these qualities. We turn with pleasure to the exquisite happiness which is the result of a virtuous choice. Home is then agreeable, and every moment is replete with satisfaction—all is harmony and peace, as in the days of primeval virtue. But without dwelling longer on this charming theme, permit me to ask, who would sacrifice such felicity for wealth?—what weakness of mind does it not betray, to forfeit the matchless joys of virtuous love, for the ideal pleasures of affluence?

Lockport, March 1, 1836.

THE HORSE.

The following passage from the work lately published by *Carey, Lea and Blanchard*, entitled, "The Adventures of a Gentleman in search of a Horse"—strikes us as worthy of being made generally known.

"There is another variation between the horse's and the human eye, of a very important and peculiar character: at the inner angle of the eye there is found a dark membrane that, apparently at the pleasure of the animal, is shot rapidly over the eye like a veil: it is instantly withdrawn, and in its rapid transit, cleans the eyeball of dust or foreign particles that may have lodged upon it. This membrane is called *the haw:* it is not muscular, but its action is curiously explained; it is projected from its place by the compression, or rather depression of the eyeball into the socket, occassioned by the retractor muscle. When the eye is depresse dby the play of the muscle, the elasticity of the fatty substance behind the eyeball, causes the haw to expand itself from the corner of the eye over the visible surface; when the retractor muscle ceases to act, the ball resumes its usual position, the fat returns to its place behind, and the haw also returns to the socket from which it has been momentarily pushed foward.

"I am the more particular in thus describing the utility and action of the haw, because such is the gross ignorance of the majority of the country farriers, that when this membrane has been affected by a temporary inflammation of the eye, and thus become enlarged and more prominent than usual, it has been regarded as a diseased excrescence, and actually extirpated, to the permanent injury of the horse. Instead of endeavoring to subdue the inflammation, by the ordinary remedies, it has appeared the simplest way to remove the diseased part; and thus the eye, though for a time apparently restored to health has in the end been lost by the casual introduction of impurities, such as dust, flies, &c. which there no longer remain any natural means of removing. It will scarcely be credited by general readers, that so prevalent is this error, as to have found a place in that learned work, the Encyclopœdia of Rees, where, under the article *haw*, this membrane is described as a diseased tumor in the eye, and instructions are given for removing it. This may give a useful hint not to confide very readily to the opinions of those farriers, whose station in life justifies a suspicion that their knowledge is merely practical, and not founded upon scientific instruction."

CLAIMS ON TRINITY CHURCH IN THE CITY OF NEW YORK—At a large meeting of the descendants of Anneke Jants held in the court room at Poughkeepsie, on the first day of July current, the subscribers were appointed their committee and agents, and directed to publish the proceedings of that meeting, which were as follows:

At a numerous meeting of the descendants of Anneke Jants, held at Poughkeepsie in Dutchess county, pursuant to public notice, on the first day of July 1836, Judge Trumpbour, of Saugerties in Ulster county, was called to the chair, and John Van Buren, esq. of Kingston in said county, was appointed secretary.

Mr. George Sullivan, of counsel for the heirs, being called upon to inform the meeting of the actual state and prospects of their claims, made a lucid and concise exposition of the rights of the claimants, the proceedings which had thus far been had in chancery, and presented a history of the claim from its earliest stages.

On motion it was unanimously resolved, that the descendants of Anneke Jants do unite in the prosecution of their claims against the Trinity Church of the city of New York, and persevere in it until the final decision of the highest tribunal of the state shall award them their rights, or decide that these are lost beyond recovery; and that a committee be appointed to take such measures for carrying into effect this resolution, as they may deem expedient.

Resolved, That this committee consist of three persons, and that Judge Trumpbour of Saugerties, Ulser county, Peter Oakley, esq. of Fishkill, Dutchess county, and John L. Bogardus, esq. of the city of New York, be said committee.

Resolved, That said committee have full powers to carry out the objects of the foregoing resolutions, in accordance with the provisions of the agreement of the 10th of July 1830.

An agreement was drawn up and annexed to the original agreement providing for the raising of funds for the prosecution of the suit instituted by their counsel, Mr. Sullivan, and such other suits as he and said committee may deem expedient in the premises.

Resolved, That said committee have power to call meetings of the descendants of Anneke Jants, at such times and places as may be convenient, by public notice or otherwise.

Resolved, That these proceedings be published in the newspapers of this state, with a view to apprise all who are interested in these claims of the course intended to be pursued.

Jacob Trumpbour, Ch'n.

John Van Buren, Sec'y.

The subscribers, in further compliance with the wishes of the heirs assembled on this occasion, earnestly request, that all persons who are descendants from Anneke Jants, or connected by marriage with her descendants, will forward in writing their names and places of residence and their respective pedigrees, so that they may receive the circulars which the committee are preparing to send them. It has become important that all should specify, as soon as may be, their respective descents, so that their respective shares or interest in the property may be ascertained. These communications may be directed to either of the subscribers, who in return will send information from time to time, of the progress of the prosecution, its prospects, and the means relied upon for success. New York, July 7, 1836.

JACOB TRUMPBOUR
Saugerties, Ulster county.
PETER OAKLEY,
Fishkill, Dutchess county.
JOHN L. BOGARDUS,
General Land Office, 3 Clinton Hall.
Beekman street, New York.

july 18-afr7t